

# Rabbit Anti-Cyclin D2 antibody

## SL1148R

Product Name:	Cyclin D2
Chinese Name:	周期素D2抗体
Alias:	CCND 2; CCND2; CyclinD2; G1/S specific cyclin D2; KIAK0002; MGC102758; CCND2 HUMAN; G1/S-specific cyclin-D2.
文献引用 Pub Med	Specific References(1) SL1148R has been referenced in 1 publications.  [IF=4.04] Wang, Y., et al. "Elevated toll-like receptor 3 inhibits pancreatic b-cell proliferation through G1 phase cell cycle arrest." Molecular and Cellular Endocrinology (2013)WB;Mouse.
	PubMed:23850521
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=5μg/TestIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	35kDa
Cellular localization:	The nucleuscytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
<b>Concentration:</b>	lmg/ml
immunogen:	KLH conjugated synthetic peptide derived from the middle of human Cyclin D2:161-288/288
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year

when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of
antibody the antibody is stable for at least two weeks at 2-4 °C.

#### PubMed:

PubMed

The protein encoded by this gene belongs to the highly conserved cyclin family, whose members are characterized by a dramatic periodicity in protein abundance throughout the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. This cyclin forms a complex with and functions as a regulatory subunit of CDK4 or CDK6, whose activity is required for cell cycle G1/S transition. This protein has been shown to interact with tumor suppressor protein Rb and the expression of this gene is regulated positively by Rb. Mutations, amplification and overexpression of this gene, which alters cell cycle progression, are observed frequently in a variety of tumors and may contribute to tumorigenesis.

#### **Function:**

Regulatory component of the cyclin D2-CDK4 (DC) complex that phosphorylates and inhibits members of the retinoblastoma (RB) protein family including RB1 and regulates the cell-cycle during G1/S transition. Phosphorylation of RB1 allows dissociation of the transcription factor E2F from the RB/E2F complex and the subsequent transcription of E2F target genes which are responsible for the progression through the G1 phase. Hypophosphorylates RB1 in early G1 phase. Cyclin D-CDK4 complexes are major integrators of various mitogenenic and antimitogenic signals. Also substrate for SMAD3, phosphorylating SMAD3 in a cell-cycle-dependent manner and repressing its transcriptional activity. Component of the ternary complex, cyclin D2/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex.

## Product Detail:

#### **Subunit:**

Interacts with either CDK4 or CDK6 protein kinase to form a serine/threonine kinase holoenzyme complex. The cyclin subunit imparts substrate specificity to the complex. Component of the ternary complex cyclin D/CDK4/CDKN1B required for nuclear translocation and modulation of CDK4-mediated kinase activity.

## Subcellular Location:

Nucleus. Cytoplasm. Membrane. Note=Cyclin D-CDK4 complexes accumulate at the nuclear membrane and are then translocated into the nucleus through interaction with KIP/CIP family members.

#### Similarity:

Belongs to the cyclin family. Cyclin D subfamily. Contains 1 cyclin N-terminal domain.

#### **SWISS:**

P30279

## Gene ID:

894

## Database links:

Entrez Gene: 894 Human

Entrez Gene: 12444 Mouse

Entrez Gene: 64033 Rat

Omim: 123833 Human

SwissProt: P30279 Human

SwissProt: P30280 Mouse

SwissProt: Q04827 Rat

Unigene: 376071 Human

Unigene: 333406 Mouse

Unigene: 96083 Rat

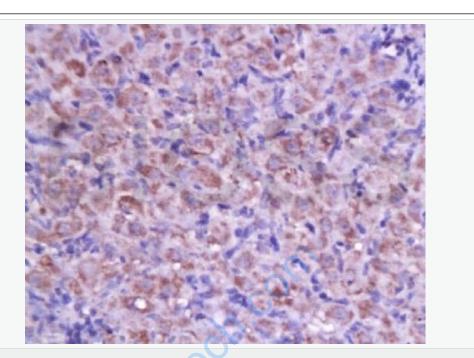
## **Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

## Cyclin

D2与周期素D1一样,为细胞周期中G1期进入S期的一个重要调控因子。细胞周期素是周期素依赖激酶的调节因子,不同的细胞周期素控制着细胞周期中不同的特定阶段。Cyclin

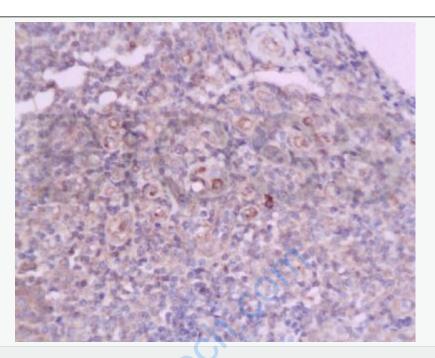
D2通过激活CdK4或CdK6等,促进DNA合成,加速细胞增殖。主要用于B细胞淋巴瘤、乳腺癌、头颈部鳞癌、食道癌、肝癌和肺癌等恶性Tumour的研究。



## Picture:

Tissue/cell: rat ovary tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

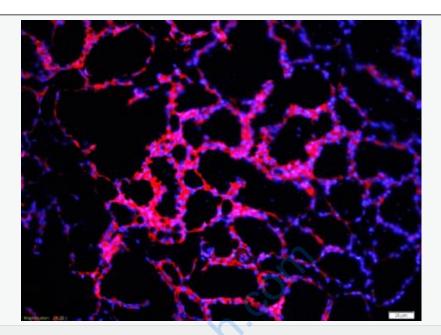
Incubation: Anti-Cyclin D2 Polyclonal Antibody, Unconjugated(SL1148R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: human flat moss tinea tissue; 4% Paraformaldehyde-fixed and paraffinembedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min;

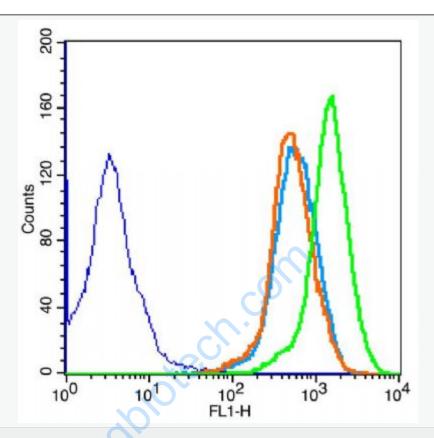
Incubation: Anti-Cyclin D2 Polyclonal Antibody, Unconjugated(SL1148R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat mammary tissue;4% Paraformaldehyde-fixed and paraffinembedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min;

Incubation: Anti-Cyclin D2 Polyclonal Antibody, Unconjugated(SL1148R) 1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, PE conjugated (SL1148R)used at 1:200 dilution for 40 minutes at 37°C. DAPI(5ug/ml,blue,C-0033) was used to stain the cell nuclei



The figure annotation: The blue histogram is unstained cells. The Wathet Blue histogram is cells stained with secondary antibody(SL1148R) alone. The Orange histogram is cells stained with rabbit IgG isotype control(SL1148R) antibody plus secondary antibody. The green histogram is cells stained with Rabbit Anti-Cyclin D2 antibody (SL1148R)plus secondary antibody.

Concebtration: 5µg/10<sup>6</sup> cells.

Positive control: MCF-7 cells.